

Form PTO-1390
(REV. 11-2000)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NUMBER
5405-311U.S. APPLICATION NO. (If known, see 37 CFR 1.5)
To be assigned**107573207**

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371**

INTERNATIONAL APPLICATION NO. PCT/US2004/031284	INTERNATIONAL FILING DATE September 23, 2004	PRIORITY DATE CLAIMED September 25, 2003
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TITLE OF INVENTION**RELATIONSHIP OF A SPECIFIC METABOLITE TO INSULIN RESISTANCE****APPLICANT(S) FOR DO/EO/US**

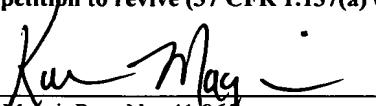
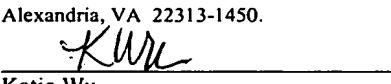
Christopher B. Newgard, Jie An, Deborah M. Muoio, Timothy R. Koves, David S. Millington

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (22) indicated below.
4. The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. is attached hereto (required only if not communicated by the International Bureau).
 - b. has been communicated by the International Bureau.
 - c. is not required, as the application was filed in the United States Receiving Office (RO/US).
6. An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. is attached hereto.
 - b. has been previously submitted under 35 U.S.C. 154(d)(4)
7. Amendments to the claims of the International Application Under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. are attached hereto (required only if not communicated by the International Bureau).
 - b. have been communicated by the International Bureau.
 - c. have not been made; however, the time limit for making such amendments has NOT expired.
 - d. have not been made and will not be made.
8. An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. An English language translation of the annexes of the International Preliminary Examination Report Under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 21 below concern document(s) or information included:

11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. A **FIRST** preliminary amendment.
14. A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. An Application Data Sheet under 37 CFR 1.76.
16. A substitute specification.
17. A change of power of attorney and/or address letter.
18. A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
19. A second copy of the published international application under 35 U.S.C. 154(d)(4).
20. A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4)
21. Other items or information: **Abstract, Return postcard**

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) To be assigned: 20/578207	INTERNATIONAL APPLICATION NO. PCT/US2004/031284	ATTORNEY DOCKET NO. 5405-311																					
<p>21. The following fees are submitted:</p> <table> <tr> <td>(a) Basic national fee... (due for all applications)</td> <td>\$300.00</td> <td rowspan="5">CALCULATIONS</td> </tr> <tr> <td>(b) Search Fee paid to USPTO as ISA and all claims satisfied provisions of PCT Article 33(1)-(4)</td> <td>\$0</td> </tr> <tr> <td>Examination Fee</td> <td>\$0</td> </tr> <tr> <td>(c) Search Fee paid to USPTO as ISA but all claims did not satisfy provisions of PCT Article 33 (1)-(4)</td> <td>\$100.00</td> </tr> <tr> <td>Examination Fee</td> <td>\$200.00</td> </tr> <tr> <td>(d) ISR not prepared by USPTO as ISA but provided or previously communicated to the USPTO by the IB Search Fee</td> <td>\$400.00</td> </tr> <tr> <td>Examination Fee</td> <td>\$200.00</td> </tr> <tr> <td>(e) All other applications: Search fee</td> <td>\$500.00</td> </tr> <tr> <td>Examination fee</td> <td>\$200.00</td> </tr> <tr> <td colspan="2">TOTAL OF ABOVE CALCULATIONS = \$600.00</td> </tr> </table>			(a) Basic national fee... (due for all applications)	\$300.00	CALCULATIONS	(b) Search Fee paid to USPTO as ISA and all claims satisfied provisions of PCT Article 33(1)-(4)	\$0	Examination Fee	\$0	(c) Search Fee paid to USPTO as ISA but all claims did not satisfy provisions of PCT Article 33 (1)-(4)	\$100.00	Examination Fee	\$200.00	(d) ISR not prepared by USPTO as ISA but provided or previously communicated to the USPTO by the IB Search Fee	\$400.00	Examination Fee	\$200.00	(e) All other applications: Search fee	\$500.00	Examination fee	\$200.00	TOTAL OF ABOVE CALCULATIONS = \$600.00	
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Examination fee	\$200.00																						
TOTAL OF ABOVE CALCULATIONS = \$600.00																							
<p><input checked="" type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.</p>																							
Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE																				
-100+	-/50+	1	X \$250.00	\$250.00																			
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).			\$																				
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$																			
Total claims	41 - 20 =	21	x \$ 50.00	\$1050.00																			
Independent Claims	21 - 3 =	18	x \$200.00	\$3600.00																			
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00	\$																			
TOTAL OF ABOVE CALCULATIONS =			\$5500.00																				
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2			\$2750.00																				
SUBTOTAL =			\$2750.00																				
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).			\$																				
TOTAL NATIONAL FEE =			\$2750.00																				
Fee for Recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +			\$																				
TOTAL FEES ENCLOSED =			\$2750.00																				
			Amount to be refunded: charged:	\$																			
				\$																			
a. <input type="checkbox"/> A check in the amount of \$ to cover the above fees is enclosed.																							
b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. 50-0220 in the amount of \$2750.00 to cover the above fees. A duplicate copy of this sheet is enclosed.																							
c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0220. A duplicate copy of this sheet is enclosed.																							
d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.																							
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.																							
SEND ALL CORRESPONDENCE TO: Myers Bigel Sibley & Sajovec, P.A. P. O. Box 37428 Raleigh, North Carolina 27627 Telephone: (919) 854-1400 Facsimile: (919) 854-1401 Customer No. 20792																							
 Karen A. Magri, Reg. No. 41,965 Date: <u>March 24, 2006</u>																							
CERTIFICATE OF EXPRESS MAILING Express Mail Label No. EV854952854US Date of Deposit: March 24, 2006 I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop PCT, P.O. Box 1450, Alexandria, VA 22313-1450.																							
 Katie Wu																							